

Guppy delivers station Structural Test Article



JSC Photo S99-06280 by James Blair

STATION ELEMENT ARRIVES AT ELLINGTON FIELD – The Structural Test Article for one of the International Space Station's 40-foot-long truss segments arrived at Ellington Field late last month to undergo acoustical vibration testing in Bldg. 49. This testing will continue



JSC Photo S99-06281 by James Blair

through the summer and fall and will verify the launch environment for the actual hardware that will be delivered to the station on assembly flight 9A scheduled in mid 2001.

International Space Station Update

Station Mission Evaluation Room managers provide round-the-clock support

The International Space Station Mission Evaluation Room in Bldg. 30 at JSC opened its doors last November with the launch of Zarya, the first ISS component. It has remained opened ever since.

Twenty-four hours each day, seven days per week, the MER brings together national and international station designers, builders and operators in solving hardware and systems issues that affect performance and safety. These specialists provide engineering support for all ISS activities both in real-time and during quiescent periods.

Twelve managers – three from NASA, eight from Boeing, and one from Lockheed Martin – oversee the day-to-day activities of the ISS MER. Mark Glorioso of NASA and Curt Phelps of Boeing lead the team.

"This team was put together in a relatively short time, and together we established the operating procedures for the ISS MER in about six months," said Glorioso. "It is a highly motivated team of engineers who look forward to coming to work every day to do their part in the assembly of the International Space Station."

A MER manager is on console around the clock during non-assembly operations. During station assembly operations, three managers are on console around the clock, with a full team of 300 engineers represented from all ISS subsystems nationwide ready to support.

Subsystem engineers and safety and operations specialists coordinate all activities necessary to make real-time decisions affecting the space station. Primary activities focus on protecting the on-orbit hardware from damage from any source and providing engineering support to repair hardware in the event that it fails. These tasks are shared between the Flight Control Team, which provides the operators, and the MER, which provides a path back to the ISS designers.

Technical inputs from the ISS MER Subsystems, Flight Control Team and other segments of MOD are reviewed and a coordinated response is provided to resolve

anomalies that arise during in-flight or quiescent periods.

As the engineering consultants for the Flight Control Team, the MER managers interface directly with the ISS and the space shuttle flight directors during shuttle missions. ISS MER managers communicate with the flight directors using voice loops and a messaging system that uses a formal electronic signature to document information passed between the MER and the flight controllers.

MER members and the flight controllers make up the team that successfully troubleshoots problems that arise on board the orbiting space station. The team has successfully resolved numerous issues over the past nine months including implementing

procedures to repair the faulty Early Communications System aboard Unity, completing a successful hatch adjustment, repairing the Russian Electrical Power System aboard Zarya and implementing software updates.

ISS viewing opportunities from the ground can be found on the Internet at: <http://spaceflight.nasa.gov/realdata/sightings/> ■

Twelve managers oversee the day-to-day activities of the International Space Station Mission Evaluation Room at JSC. The managers are, from left, front: Dan Bahadorani, Chuck Armstrong; back: Shannon Walker, Bill Killingsworth, Matt Duggan, Henry Domingo, Michael Boulavsky, Mark Glorioso, Pete Sprunger, Curt Phelps. Not pictured: Todd Dark-Fox, Keith LaMay.



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